Engineering Interpretations

Water Management

Interpretations of soils for water management are given as limitations for pond reservoir areas; embankments, dikes, and levees; excavated pond (aquifer-fed); and as restrictive features that affect drainage, irrigation, terraces and diversions, and grassed waterways.

POND RESERVOIR AREA is the area that holds water behind a dam or embankment. Soils best suited to this use have a low seepage potential, which is determined by the permeability and depth to fractured or permeable bedrock, or other permeable material.

EMBANKMENTS, DIKES, AND LEVEES are raised structures of soil material constructed to impound water or protect land against overflow. They generally are less than 20 feet high and are constructed of "homogeneous" soil material (without a core zone) and compacted to medium density.

EXCAVATED PONDS (AQUIFER-FED) are bodies of water created by excavating a pit or dugout into a ground-water aquifer. Excluded are ponds which are fed by surface runoff or that have embankments that impound water 3 feet or more above the original surface.

DRAINAGE is the process of removing excess surface and subsurface water from agricultural land. Soil features are listed that affect grading, excavation, and stability of trench sides or ditch banks. Features are also listed which might affect productivity after drainage is installed. The availability of drainage outlets must also be considered.

IRRIGATION is the controlled application of water to supplement rainfall for supporting plant growth. Soil features are listed that affect design, layout, construction, management, or performance of an irrigation system.

TERRACES AND DIVERSIONS are embankments or a combination of an embankment and a channel constructed across a slope to control erosion by diverting or storing surface runoff instead of permitting it to flow uninterrupted down the slope. Soil features are listed that affect the construction of terraces and diversions and that may cause problems after construction.

GRASSED WATERWAYS are natural or constructed channels that generally are broad and shallow and are covered with erosion-resistant grasses. They are used to conduct surface water to outlets at a nonerosive velocity. Soil features are listed that affect the construction and maintenance of the waterway, and also that affect the growth of grass after construction.

This subsection includes:

• (a) Water Management

Water Management

Map symbol and soil name	Pond reservoir area	as	 Drainage 		 Irrigation 		Terraces and divers	ions	Grassed waterway	s
	Rating class and limiting features	Value 	Rating class and limiting features	Value 	Rating class and limiting features	Value 	Rating class and limiting features	Value 	Rating class and limiting features	Value
01B: Lagonda	 Slightly limited ~slope (slightly limited)	 0.10 	 Moderately limited ~slope (moderately limited) ~percs slowly (moderately limited)		 Moderately limited ~erodes easily (moderately limited) ~slope (moderately limited) ~percs slowly (moderately limited)	0.60	(moderately limited) ~wetness (moderately limited)	 0.60 0.44 0.10	Moderately limited ~erodes easily (moderately limited) ~wetness (moderately limited) ~slope (slightly limited)	 0.60 0.44 0.10
02C2: Lagonda	 Moderately limited ~slope (moderately limited)	 0.45 	 Very limited ~slope (very limited) ~percs slowly (moderately limited)	0.39	 Very limited ~slope (very limited) ~erodes easily (moderately limited) ~percs slowly (moderately limited)	 1.00 0.60 0.39	 Moderately limited ~erodes easily (moderately limited) ~slope (moderately limited) ~wetness (moderately limited)	 0.60 0.45 0.44	Moderately limited ~erodes easily (moderately limited) ~slope (moderately limited) ~wetness (moderately limited)	0.60
03B: Armster	 Slightly limited ~slope (slightly limited) 	 0.10 	 Moderately limited ~slope (moderately limited) ~percs slowly (slightly limited)		 Moderately limited ~erodes easily (moderately limited) ~slope (moderately limited) ~percs slowly (slightly limited)	 0.60 0.40 0.13	 Moderately limited ~erodes easily (moderately limited) ~slope (slightly limited)	 0.60 0.10 	Moderately limited ~erodes easily (moderately limited) ~slope (slightly limited)	 0.60 0.10
03C: Armster	 Moderately limited ~slope (moderately limited) 	 0.45 	 Very limited ~slope (very limited) ~percs slowly (slightly limited)	İ	 Very limited ~slope (very limited) ~erodes easily (moderately limited) ~percs slowly (slightly limited)	 1.00 0.60 0.13	(moderately limited)	 0.60 0.45 	Moderately limited ~erodes easily (moderately limited) ~slope (moderately limited)	0.60

Water Management

Map symbol and soil name	Pond reservoir are	as	 Drainage 		 Irrigation		Terraces and divers	ions	 Grassed waterway 	rs
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
04C2: Armster	 Moderately limited ~slope (moderately limited) 	 0.45 	 Very limited ~slope (very limited) ~percs slowly (slightly limited)	İ	 Very limited ~slope (very limited) ~erodes easily (moderately limited) ~slow intake (moderately limited)	 0.60 0.60	 Moderately limited ~erodes easily (moderately limited) ~slope (moderately limited)	 0.60 0.45 	 Moderately limited ~erodes easily (moderately limited) ~slope (moderately limited)	0.45
04D3: Armster	 Limited ~slope (limited) 	0.99	 Very limited ~slope (very limited) ~percs slowly (slightly limited)	j	 Very limited ~slope (very limited) ~erodes easily (moderately limited) ~slow intake (moderately limited)	0.60	(limited)	 0.99 0.60 	 Limited ~slope (limited) ~erodes easily (moderately limited)	0.99
05B: Grundy	 Slightly limited ~slope (slightly limited) 	 0.10 	 Moderately limited ~slope (moderately limited) ~percs slowly (moderately limited)	•	 Moderately limited ~erodes easily (moderately limited) ~slope (moderately limited) ~percs slowly (moderately limited)	0.40	 Moderately limited ~erodes easily (moderately limited) ~wetness (moderately limited) ~slope (slightly limited)	0.60	 Moderately limited ~erodes easily (moderately limited) ~wetness (moderately limited) ~slope (slightly limited)	0.53
07C2: Knox	 Moderately limited ~seepage (moderately limited) ~slope (moderately limited)	0.45	 Very limited ~slope (very limited) 	1.00	 Very limited ~slope (very limited) 	 1.00 	 Moderately limited ~slope (moderately limited) 	 0.45 	 Moderately limited ~slope (moderately limited) 	0.45

Water Management

Map symbol and soil name	Pond reservoir area	as	 Drainage 		 Irrigation 	Irrigation		ions	Grassed waterways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
07E2: Knox	 Very limited ~slope (very limited) ~seepage (moderately limited)	1.00	 Very limited ~slope (very limited)	1.00	 Very limited ~slope (very limited)	1.00	 Very limited ~slope (very limited)	1.00	 Very limited ~slope (very limited)	1.00
07F: Knox	 Very limited ~slope (very limited) ~seepage (moderately limited)	 1.00 0.50	 Very limited ~slope (very limited)	 1.00 	 Very limited ~slope (very limited)	 1.00 	 Very limited ~slope (very limited)	 1.00 	 Very limited ~slope (very limited)	1.00
08D3: Knox	 Limited ~slope (limited) ~seepage (moderately limited)	 0.99 0.50	 Very limited ~slope (very limited)	1.00	 Very limited ~slope (very limited)	1.00	 Limited ~slope (limited)	 0.99 	 Limited ~slope (limited)	 0.99
09B: Sharpsburg	 Moderately limited ~seepage (moderately limited) ~slope (slightly limited)	 0.50 0.10	 Moderately limited ~slope (moderately limited) ~percs slowly (slightly limited)	j	 Moderately limited ~slope (moderately limited) ~percs slowly (slightly limited)	0.40	 Slightly limited ~slope (slightly limited)	 0.10 	 Slightly limited ~slope (slightly limited)	0.10
09C2: Sharpsburg	 Moderately limited ~seepage (moderately limited) ~slope (moderately limited)	0.45	 Very limited ~slope (very limited) ~percs slowly (slightly limited)	j	 Very limited ~slope (very limited) ~percs slowly (slightly limited)	1.00	 Moderately limited ~slope (moderately limited) 	 0.45 	 Moderately limited ~slope (moderately limited) 	 0.45

Water Management

Map symbol and soil name	Pond reservoir area	as	 Drainage 		 Irrigation 		Terraces and divers	ions	 Grassed waterway 	rs
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
11B: Ladoga	 Moderately limited ~seepage (moderately limited) ~slope (slightly limited)	0.50	 Moderately limited ~slope (moderately limited) ~percs slowly (slightly limited)		 Moderately limited ~slope (moderately limited) ~percs slowly (slightly limited)	0.40	 Slightly limited ~slope (slightly limited)	0.10	 Slightly limited ~slope (slightly limited)	0.10
11C2: Ladoga	 Moderately limited ~seepage (moderately limited) ~slope (moderately limited)	 0.50 0.45	 Very limited ~slope (very limited) ~percs slowly (slightly limited)		 Very limited ~slope (very limited) ~percs slowly (slightly limited)	 1.00 0.13	 Moderately limited ~slope (moderately limited) 	 0.45 	 Moderately limited ~slope (moderately limited) 	0.45
14C2: Greenton	 Moderately limited ~slope (moderately limited) 	 0.45 	 Very limited ~slope (very limited) ~percs slowly (moderately limited)	 1.00 0.39	 Very limited ~slope (very limited) ~erodes easily (moderately limited) ~slow intake (moderately limited)	 1.00 0.60 0.60	 Moderately limited ~erodes easily (moderately limited) ~wetness (moderately limited) ~slope (moderately limited)	0.60	 Moderately limited ~erodes easily (moderately limited) ~wetness (moderately limited) ~slope (moderately limited)	0.53
14D2: Greenton	 Limited ~slope (limited) 	 0.99 	 Very limited ~slope (very limited) ~percs slowly (moderately limited)	 1.00 0.39 	 Very limited ~slope (very limited) ~erodes easily (moderately limited) ~slow intake (moderately limited)	 1.00 0.60 0.60	Limited -slope (limited) -erodes easily (moderately limited) -wetness (moderately limited)	 0.99 0.60 0.53	 Limited ~slope (limited) ~erodes easily (moderately limited) ~wetness (moderately limited)	0.99

Water Management

Map symbol and soil name	Pond reservoir area	as	Drainage		Irrigation		Terraces and divers	ions	Grassed waterway	rs
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
16B: Sampsel	 Slightly limited ~slope (slightly limited)	 0.10 	 Moderately limited ~slope (moderately limited) ~percs slowly (moderately limited)	 0.40 0.39	 Moderately limited ~erodes easily (moderately limited) ~slow intake (moderately limited) ~slope (moderately limited)	0.60	 Very limited ~wetness (very limited) ~erodes easily (moderately limited) ~slope (slightly limited)	 1.00 0.60 0.10	 Very limited ~wetness (very limited) ~erodes easily (moderately limited) ~slope (slightly limited)	 1.00 0.60 0.10
21B: Wakenda	 Moderately limited ~seepage (moderately limited) ~slope (slightly limited)	 0.50 0.10	 Moderately limited ~slope (moderately limited) 	 0.40 	 Moderately limited ~slope (moderately limited) 	 0.40 	 Slightly limited ~slope (slightly limited) 	 0.10 	 Slightly limited ~slope (slightly limited) 	0.10
21C2: Wakenda	 Moderately limited ~seepage (moderately limited) ~slope (moderately limited)	 0.50 0.45	 Very limited ~slope (very limited)	 1.00 	 Very limited ~slope (very limited)	1.00	 Moderately limited ~slope (moderately limited) 	 0.45 	 Moderately limited ~slope (moderately limited) 	0.45
23C2: Higginsville	 Moderately limited ~seepage (moderately limited) ~slope (moderately limited)	 0.50 0.45 	 Very limited ~slope (very limited) 	 1.00 	 Very limited ~slope (very limited) ~erodes easily (moderately limited)	 1.00 0.60 	 Moderately limited ~erodes easily (moderately limited) ~slope (moderately limited) ~wetness (moderately limited)	0.60	 Moderately limited ~erodes easily (moderately limited) ~slope (moderately limited) ~wetness (moderately limited)	0.45

Water Management

Map symbol and soil name	Pond reservoir area	as	Drainage		Irrigation 		Terraces and divers	ions	Grassed waterway	rs
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
25C: Gosport	 Limited ~depth to bedrock (limited) ~slope (moderately limited)	0.83	 Very limited ~percs slowly (very limited) ~slope (very limited) ~depth to bedrock (slightly limited)	 1.00 	 Very limited ~percs slowly (very limited) ~slope (very limited) ~erodes easily (moderately limited)	1.00	 Very limited ~depth to bedrock (very limited) ~erodes easily (moderately limited) ~slope (moderately limited)	0.45	Limited ~depth to bedrock (limited) ~erodes easily (moderately limited) ~slope (moderately limited)	0.45
25D: Gosport	 Limited ~slope (limited) ~depth to bedrock (limited)	0.99	 Very limited ~slope (very limited) ~percs slowly (very limited) ~depth to bedrock (moderately limited)	 1.00 0.46	 Very limited ~slope (very limited) ~percs slowly (very limited) ~erodes easily (moderately limited)	 1.00 1.00 0.60	(very limited)	 1.00 0.99 0.60	Limited ~slope (limited) ~depth to bedrock (limited) ~erodes easily (moderately limited)	0.99
25F: Gosport	 Very limited ~slope (very limited) ~depth to bedrock (limited)	 1.00 0.96	 very limited ~slope (very limited) ~percs slowly (very limited) ~depth to bedrock (limited)	 1.00 	 very limited ~slope (very limited) ~percs slowly (very limited) ~depth to bedrock (limited)	 1.00 1.00 0.83	 Very limited ~slope (very limited) ~depth to bedrock (very limited) ~erodes easily (moderately limited)	 1.00 1.00 0.60	 Very limited ~slope (very limited) ~depth to bedrock (limited) ~erodes easily (moderately limited)	1.00
30: Nodaway	 Moderately limited ~seepage (moderately limited)	 0.50	 Limited ~flooding (limited)	 0.90	 Limited ~flooding (limited)	 0.90 	 Not limited 	 	 Not limited 	
32: Colo	 Moderately limited ~seepage (moderately limited) 	 0.50 	 Moderately limited ~flooding (moderately limited) 		 Moderately limited ~flooding (moderately limited) ~slow intake (moderately limited)	0.60	 Very limited ~wetness (very limited)	 1.00 	 Very limited ~wetness (very limited)	1.00

Water Management

Map symbol and soil name	Pond reservoir are	eas	Drainage		Irrigation		Terraces and divers	ions	Grassed waterway 	rs
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value 	Rating class and limiting features	Value	Rating class and limiting features	Value
34: Zook	 - Not limited 		 Moderately limited ~flooding (moderately limited) ~percs slowly (moderately limited)		 Moderately limited ~slow intake (moderately limited) ~flooding (moderately limited) ~erodes easily (moderately limited)	0.60	(very limited)	 1.00 0.60	 Very limited ~wetness (very limited) ~erodes easily (moderately limited)	1.00
36: Wabash	 Not limited 		 Very limited ~percs slowly (very limited) ~flooding (moderately limited)	 0.60	 Very limited ~percs slowly (very limited) ~slow intake (limited) ~flooding (moderately limited)	 1.00 0.66 0.60	 Very limited ~wetness (very limited) 	 1.00 	 Very limited ~wetness (very limited) 	1.00
42: Bremer	 Not limited 		 Moderately limited ~flooding (moderately limited) ~percs slowly (slightly limited)	İ	 Moderately limited ~flooding (moderately limited) ~percs slowly (slightly limited)	 0.60 0.13	 Moderately limited ~wetness (moderately limited) 	 0.60 	 Moderately limited ~wetness (moderately limited) 	 0.60
60: Aholt	 - Not limited 		 Very limited ~percs slowly (very limited) ~flooding (moderately limited)	 0.60	 Very limited ~percs slowly (very limited) ~slow intake (limited) ~flooding (moderately limited)	 1.00 0.89 0.60	 Very limited ~wetness (very limited) 	 1.00 	 Very limited ~wetness (very limited) 	1.00

Water Management

Map symbol and soil name	Pond reservoir are	as	Drainage		Irrigation 		Terraces and divers	ions	Grassed waterway	rs
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
62: Booker	 Not limited 		Very limited -ponded (wetness) (very limited) -percs slowly (very limited) -flooding	1.00	 Very limited ~ponded (wetness) (very limited) ~percs slowly (very limited) ~slow intake	 1.00 1.00 0.89	 Very limited ~ponded (wetness) (very limited) ~wetness (very limited)	 1.00 1.00	 Very limited ~wetness (very limited)	1.00
64: Cotter	 Moderately limited ~seepage (moderately limited)	 0.50	(moderately limited) Not limited		(limited) Not limited 		 Not limited 		 Not limited 	
66: Gilliam	 Moderately limited ~seepage (moderately limited)	1	 Moderately limited ~flooding (moderately limited)	1	 Moderately limited ~flooding (moderately limited)	 0.60 	 Moderately limited ~wetness (moderately limited)	 0.36 	 Moderately limited ~wetness (moderately limited)	0.36
68: Haynie	 Moderately limited ~seepage (moderately limited)		 Moderately limited ~flooding (moderately limited)	 0.60 	 Moderately limited ~flooding (moderately limited) ~erodes easily (moderately limited)	0.60	 Moderately limited ~erodes easily (moderately limited)	 0.60 	 Moderately limited ~erodes easily (moderately limited)	0.60
70: Hodge	 Very limited ~seepage (very limited) 	 1.00 	 Limited ~cutbanks cave (limited ~flooding (moderately limited)	0.60	 Limited ~fast intake (limited ~flooding (moderately limited) ~droughty (slightly limited)	 0.90 0.60 0.25	 Moderately limited ~too sandy (moderately limited) 		 Slightly limited ~droughty (slightly limited)	0.25

Water Management

Map symbol and soil name	Pond reservoir are	as	Drainage		 Irrigation 		Terraces and diversions		Grassed waterways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
72: Kenmoor	 Very limited ~seepage (very limited) 	 1.00 	 Limited ~cutbanks cave (limited ~flooding (moderately limited) ~percs slowly (moderately limited)	 0.60 0.39	 Limited ~fast intake (limited ~flooding (moderately limited) ~percs slowly (moderately limited)	0.90	 Slightly limited ~wetness (slightly limited)	 0.28 	 Slightly limited ~wetness (slightly limited)	 0.28
74: Landes	 Very limited ~seepage (very limited)	 1.00 	 Limited ~cutbanks cave (limited ~flooding (moderately limited)	0.60	 Moderately limited ~flooding (moderately limited) 	1	 Moderately limited ~too sandy (moderately limited)	 0.60 	 Not limited 	
76: Leta	 Moderately limited ~seepage (moderately limited) 		 Moderately limited ~flooding (moderately limited) ~percs slowly (moderately limited)	0.39	 Limited ~slow intake (limited) ~flooding (moderately limited) ~percs slowly (moderately limited)	0.68	 Moderately limited ~wetness (moderately limited) 	 0.44 	 Moderately limited ~wetness (moderately limited) 	 0.44
84: Norborne	 Moderately limited ~seepage (moderately limited)	 0.50	 Not limited 		 Not limited 		 Not limited 	 	 Not limited 	
86: Parkville	 Moderately limited ~seepage (moderately limited) 		 Very limited ~percs slowly (very limited) ~flooding (moderately limited)	0.60	 Very limited ~percs slowly (very limited) ~slow intake (moderately limited) ~flooding (moderately limited)	0.60	 Moderately limited ~too sandy (moderately limited) ~wetness (moderately limited)	0.60	 Moderately limited ~wetness (moderately limited) 	0.60

Water Management

Map symbol and soil name	Pond reservoir are	as	Drainage		 Irrigation 		Terraces and divers	ions	 Grassed waterway: 	s
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value 	Rating class and limiting features	Value
88: Bremer	 Not limited 	 	 Slightly limited ~percs slowly (slightly limited) 	0.13	 Moderately limited ~slow intake (moderately limited) ~percs slowly (slightly limited)	 0.60 0.13	 Moderately limited ~wetness (moderately limited) 	 0.60 	 Moderately limited ~wetness (moderately limited) 	0.60
90: Waldron	 Not limited 	 	 Moderately limited ~flooding (moderately limited) ~percs slowly (moderately limited)		 Moderately limited ~slow intake (moderately limited) ~flooding (moderately limited) ~percs slowly (moderately limited)	0.60 0.39	 Moderately limited ~wetness (moderately limited) 	 0.44 	 Moderately limited ~wetness (moderately limited)	0.44
92: Waubonsie	 Very limited ~seepage (very limited)	 1.00 	 Moderately limited ~flooding (moderately limited) ~percs slowly (moderately limited)		 Moderately limited ~flooding (moderately limited) ~percs slowly (moderately limited)	0.39	 Moderately limited ~wetness (moderately limited)	 0.44 	 Moderately limited ~wetness (moderately limited)	0.44
100: Udorthents	 Moderately limited ~slope (moderately limited) 		 Not Rated Not Rated Not Rated ~slope (very limited)	1.00	 Not Rated Not Rated Not Rated Not Rated		 Not Rated Not Rated ~slope (moderately limited)	 	 Not Rated Not Rated Not Rated ~slope (moderately limited)	0.60
W: Water	 Not rated 		 Not rated 		 Not rated 		 Not rated 		 Not rated 	